

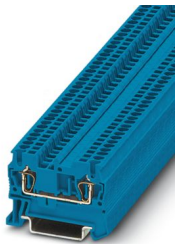
# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Feed-through terminal block, nom. voltage: 500 V, nominal current: 17.5 A, number of connections: 2, connection method: Spring-cage connection, Rated cross section: 1.5 mm<sup>2</sup>, 1 level, cross section: 0.08 mm<sup>2</sup> - 1.5 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: blue

## Your advantages

- The consistent double function shaft offers every opportunity for time-saving potential distribution and accommodating test accessories
- As well as saving space, the compact design and front connection enable user-friendly wiring in a small amount of space
- The large wiring space enables the use of conductors with ferrules and plastic collars within the nominal cross section
- Tested for railway applications

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 3031089             |
| Packing unit                         | 50 pc               |
| Minimum order quantity               | 50 pc               |
| Sales key                            | BE2111              |
| Product key                          | BE2111              |
| Catalog page                         | Page 207 (C-1-2019) |
| GTIN                                 | 4017918186630       |
| Weight per piece (including packing) | 5 g                 |
| Weight per piece (excluding packing) | 4.505 g             |
| Customs tariff number                | 85369010            |
| Country of origin                    | CN                  |

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

## Technical data

### Product properties

|                       |                             |
|-----------------------|-----------------------------|
| Product type          | Feed-through terminal block |
| Product family        | ST                          |
| Area of application   | Railway industry            |
|                       | Machine building            |
|                       | Plant engineering           |
|                       | Process industry            |
| Number of connections | 2                           |
| Number of rows        | 1                           |
| Potentials            | 1                           |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 6 kV   |
| Maximum power dissipation for nominal condition | 0.56 W |

### Connection data

|                                 |                     |
|---------------------------------|---------------------|
| Number of connections per level | 2                   |
| Nominal cross section           | 1.5 mm <sup>2</sup> |

#### 1 level

|                                                                                           |                                                           |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Stripping length                                                                          | 8 mm ... 10 mm                                            |
| Internal cylindrical gage                                                                 | A1                                                        |
| Connection in acc. with standard                                                          | IEC 60947-7-1                                             |
| Conductor cross section rigid                                                             | 0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>              |
| Cross section AWG                                                                         | 28 ... 16 (converted acc. to IEC)                         |
| Conductor cross section flexible                                                          | 0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>              |
| Conductor cross section, flexible [AWG]                                                   | 28 ... 16 (converted acc. to IEC)                         |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>              |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>              |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup>                                       |
| Nominal current                                                                           | 17.5 A                                                    |
| Maximum load current                                                                      | 17.5 A (with 1.5 mm <sup>2</sup> conductor cross section) |
| Nominal voltage                                                                           | 500 V                                                     |
| Nominal cross section                                                                     | 1.5 mm <sup>2</sup>                                       |

### Ex data

#### Rated data (ATEX/IECEx)

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

|                                                                          |                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Identification                                                           | II 2 GD Ex eb IIC Gb                                                                                                                                                                                                               |
| Operating temperature range                                              | -60 °C ... 85 °C                                                                                                                                                                                                                   |
| Ex-certified accessories                                                 | 3030417 D-ST 2,5<br>3030721 ATP-ST 4<br>1204504 SZF 0-0,4X2,5<br>3022276 CLIPFIX 35-5<br>3022218 CLIPFIX 35                                                                                                                        |
| List of bridges                                                          | Plug-in bridge / FBS 2-4 / 3030116<br>Plug-in bridge / FBS 3-4 / 3030129<br>Plug-in bridge / FBS 4-4 / 3030132<br>Plug-in bridge / FBS 5-4 / 3030145<br>Plug-in bridge / FBS 10-4 / 3030158<br>Plug-in bridge / FBS 20-4 / 3030352 |
| Bridge data                                                              | 16.5 A (1.5 mm²)                                                                                                                                                                                                                   |
| Ex temperature increase                                                  | 40 K (19.4 A / 1.5 mm²)                                                                                                                                                                                                            |
| for bridging with bridge                                                 | 440 V                                                                                                                                                                                                                              |
| - At bridging between non-adjacent terminal blocks                       | 352 V                                                                                                                                                                                                                              |
| - At bridging between non-adjacent terminal blocks via PE terminal block | 352 V                                                                                                                                                                                                                              |
| - At cut-to-length bridging with cover                                   | 220 V                                                                                                                                                                                                                              |
| - At cut-to-length bridging with partition plate                         | 275 V                                                                                                                                                                                                                              |
| Rated insulation voltage                                                 | 400 V                                                                                                                                                                                                                              |
| output                                                                   | (Permanent)                                                                                                                                                                                                                        |

## Ex level General

|                      |         |
|----------------------|---------|
| Rated voltage        | 440 V   |
| Rated current        | 17.5 A  |
| Maximum load current | 17.5 A  |
| Contact resistance   | 1.43 mΩ |

## Ex connection data General

|                              |                      |
|------------------------------|----------------------|
| Nominal cross section        | 1.5 mm²              |
| Rated cross section AWG      | 16                   |
| Connection capacity rigid    | 0.08 mm² ... 1.5 mm² |
| Connection capacity AWG      | 28 ... 16            |
| Connection capacity flexible | 0.08 mm² ... 1.5 mm² |
| Connection capacity AWG      | 28 ... 16            |

## Dimensions

|                    |         |
|--------------------|---------|
| Width              | 4.2 mm  |
| End cover width    | 2.2 mm  |
| Height             | 48.5 mm |
| Depth on NS 35/7,5 | 36.5 mm |
| Depth on NS 35/15  | 44 mm   |

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

## Material specifications

|                                                                         |                 |
|-------------------------------------------------------------------------|-----------------|
| Color                                                                   | blue (RAL 5015) |
| Flammability rating according to UL 94                                  | V0              |
| Insulating material group                                               | I               |
| Insulating material                                                     | PA              |
| Static insulating material application in cold                          | -60 °C          |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 125 °C          |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C          |
| Fire protection for rail vehicles (DIN EN 45545-2) R22                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R23                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R24                  | HL 1 - HL 3     |
| Fire protection for rail vehicles (DIN EN 45545-2) R26                  | HL 1 - HL 3     |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 27,5 MJ/kg      |
| Surface flammability NFPA 130 (ASTM E 162)                              | passed          |
| Specific optical density of smoke NFPA 130 (ASTM E 662)                 | passed          |
| Smoke gas toxicity NFPA 130 (SMP 800C)                                  | passed          |

## Mechanical properties

### Mechanical data

|                 |     |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

## Environmental and real-life conditions

### Ambient conditions

|                                          |                                                                                                                              |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature (operation)          | -60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Ambient temperature (storage/transport)  | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)                                                    |
| Ambient temperature (assembly)           | -5 °C ... 70 °C                                                                                                              |
| Ambient temperature (actuation)          | -5 °C ... 70 °C                                                                                                              |
| Permissible humidity (operation)         | 20 % ... 90 %                                                                                                                |
| Permissible humidity (storage/transport) | 30 % ... 70 %                                                                                                                |

## Standards and regulations

|                                  |               |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60947-7-1 |
|----------------------------------|---------------|

## Mounting

|               |           |
|---------------|-----------|
| Mounting type | NS 35/7,5 |
|               | NS 35/15  |

# ST 1,5 BU - Feed-through terminal block

3031089

<https://www.phoenixcontact.com/au/products/3031089>



## Drawings

Circuit diagram



# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/3031089>

|                                  |                       |                       |                   |                             |
|----------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <b>CSA</b><br>Approval ID: 13631 |                       |                       |                   |                             |
|                                  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                      | 300 V                 | 15 A                  | 26 - 14           | -                           |
| Use group C                      | 300 V                 | 15 A                  | 26 - 14           | -                           |

|                                                     |                       |                       |                   |                             |
|-----------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <b>IECEE CB Scheme</b><br>Approval ID: DE1-63027_A1 |                       |                       |                   |                             |
|                                                     | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                     | 500 V                 | 17.5 A                | -                 | 0.2 - 1.5                   |

|                                          |  |  |  |  |
|------------------------------------------|--|--|--|--|
| <b>KR</b><br>Approval ID: HMB17372-EL002 |  |  |  |  |
|------------------------------------------|--|--|--|--|

|                                                    |  |  |  |  |
|----------------------------------------------------|--|--|--|--|
| <b>ClassNK</b> <b>NK</b><br>Approval ID: 09 ME 140 |  |  |  |  |
|----------------------------------------------------|--|--|--|--|

|                                                          |                       |                       |                   |                             |
|----------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <b>VDE approval of drawings</b><br>Approval ID: 40009031 |                       |                       |                   |                             |
|                                                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                          | 500 V                 | 17.5 A                | -                 | 0.2 - 1.5                   |

|                                                |                       |                       |                   |                             |
|------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <b>cULus Recognized</b><br>Approval ID: E60425 |                       |                       |                   |                             |
|                                                | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                    | 300 V                 | 15 A                  | 26 - 14           | -                           |
| Use group C                                    | 300 V                 | 15 A                  | 26 - 14           | -                           |
| Use group D                                    | 600 V                 | 5 A                   | 26 - 14           | -                           |

|                                       |  |  |  |  |
|---------------------------------------|--|--|--|--|
| <b>DNV</b><br>Approval ID: TAE00001CS |  |  |  |  |
|---------------------------------------|--|--|--|--|

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>



**ATEX**

Approval ID: KEMA01ATEX2129U

|                              | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Type examination certificate | 440 V                 | 17.5 A                | -                 | 0.08 - 1.5                  |



**EAC Ex**

Approval ID: KZ 7500525010101950



**IECEx**

Approval ID: IECEx KEM 06.0043U

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 440 V                 | 17.5 A                | -                 | 0.08 - 1.5                  |



**CCC**

Approval ID: 2020322313000621



**UKCA-EX**

Approval ID: DEKRA 21UKEX0302U

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27250101 |
|-------------|----------|

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000897 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

# ST 1,5 BU - Feed-through terminal block



3031089

<https://www.phoenixcontact.com/au/products/3031089>

## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd  
Unit 7, 2-8 South Street  
Rydalmere NSW 2116  
1300 786 411  
[customerservice@phoenixcontact.com.au](mailto:customerservice@phoenixcontact.com.au)